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ARNOLD & PORTER KAYE SCHOLER

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February 17, 2017

VIA ELECTRONIC MAIL AND FEDERAL EXPRESS

Craig Melodia
Regional Counsel
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Milwaukee Solvay Coke and Gas Site

Dear Craig:

This letter responds to EPA's Special Notice Letter to Honeywell International Inc. ("Honeywell") of October 25, 2016, where EPA requested that Honeywell join an Administrative Order on Consent for EPA past costs and for the Remedial Investigation and Feasibility Study for the Milwaukee Solvay Coke and Gas Site ("Site"). Honeywell has reviewed the information EPA provided (consisting mainly of press reports and articles in trade journals) regarding the alleged role of Honeywell's predecessor at the Site. Honeywell has also preliminarily identified a number of other publicly available documents regarding the Site, including property title documents, which we have attached to this letter. Based on the documents EPA provided and the documents we have included with this letter, Honeywell does not believe the information identified to date supports EPA's contention that Honeywell is a potentially responsible party at the Site.

Neither the documents EPA provided nor the documents we are providing with this letter indicate that the Semet-Solvay Company ("Semet-Solvay"), Honeywell's alleged predecessor company, ever owned the Site. According to title records that we have identified to date, the Site was owned from 1903 until approximately 1962 by the Milwaukee Coke and Gas Company (not a Honeywell predecessor) and its successors. In fact, the Semet-Solvay Company does not appear in the chain of title of the Site. Media reports in the documents provided by EPA that refer to the facility as the "Solvay plant" or "the Semet Solvay Works," are from more than 100 years ago, are unspecific, do not identify sources, and are not authoritative. More authoritative records, including records from the Milwaukee City Council, indicate that the Milwaukee Coke and Gas Company, and not Semet-Solvay, was the Site owner. For example, we have located a January 1921 article in a Semet-Solvay Company newsletter. That article, which appears to have

been part of a series of articles providing an overview history of the Company, makes only a cursory statement about the Milwaukee facility, asserting that "A plant of 80 ovens was constructed at Milwaukee, Wisconsin for the Milwaukee Coke and Gas Company to produce merchant coke and gas for the City of Milwaukee." (Emphasis added). Another article in the same historical series notes that the Company added "80 more ovens at Milwaukee for the Milwaukee Coke and Gas Company." (Emphasis added). The articles make no other reference to the Milwaukee facility.

This kind of commercial arrangement with a Site's owner/operator also does not create operator liability under CERCLA. To qualify as an operator, a party "must manage, direct or conduct operations specifically related to pollution, that is, operations having to do with the leakage or disposal of hazardous waste, or decisions about compliance with environmental regulations." *U.S. v. Bestfoods,* 524 U.S. 51, 66-67 (1998). CERCLA imposes operator liability "only upon those who actually operate a 'facility' within the meaning of CERCLA" but not on "the designer or builder of a manufacturing system at a site containing the facility." *Edward Hines Lumber Co. v. Vulcan Materials Co*., 685 F. Supp. 651, 656-57 (N.D. Ill.) aff'd 861 F.2d 155 (7th Cir. 1988). In *Hines*, the defendant was found not to be the operator of the facility even though it "designed and built the plant, furnished the [raw materials], trained [owner's] employees and reserved the right to inspect ongoing operations." 861 F. 2d at 157. The 7th Circuit found the defendant not to be an operator, even though it had full access to the plant for purposes of quality control, and allowed the owner to use its trademark in selling the finished product. *Id.* at 156. Absent the right to control the work, to choose employees or to direct their activities, particularly control over the disposal of hazardous substances, the contractor is not liable as an operator under CERCLA. *See E. Bay Mun. Util. Dist v. U.S. Dep't of Commerce,*142 F.3d 479, 485-486 (D.C. Cir. 1998). *See also Brookfield-N. Riverside Water Comm'n v. Martin Oil Mktg., Ltd.,* 1992 WL 63274 at 8 (N.D. Ill. Mar 12, 1992) (citing *Hines* for the proposition that operator liability requires that a contractor "must have exercised control over the disposal of hazardous substances.") *See also U.S. v. Vertac Chemical Corp.*, 46 F.3d 803, 809 (8th Cir. 1995) (finding that the federal government was not an operator of a privately-owned Agent Orange production facility despite contracting for the facility's output, having inspectors on site to review compliance with federal regulations, and knowing that the wastes from the production contained hazardous substances).

The information we have reviewed does not demonstrate that Semet-Solvay was an operator at the Site, as that term is understood under CERCLA. Based on the newsletters and other public documents, it is our general understanding that, as part of its business, the Semet-Solvay Company built coke ovens for other companies. It appears that Semet-Solvay contracted with Milwaukee Coke and Gas sometime around 1903 to construct coking ovens and certain other equipment at the Site, and to receive the gas byproduct from the coking ovens. Semet

Solvay's role at the Site appears to have terminated some time prior to 1920. (A Semet-Solvay map from 1920 identifies Milwaukee as one of several locations of "by-product coke ovens, built but not operated by Semet-Solvay Co.") The documents do not show that Semet-Solvay had the level of operational control over the Milwaukee Coke and Gas operations necessary to confer operator liability. In fact, a Milwaukee Coke and Gas Company employee newsletter from this period describes activities by its employees showing day-to-day operational control over operations at the Site, and do not mention Semet-Solvay. The March 1914 issue of The Conveyor, a newsletter "published monthly in the interest of, and for free distribution among, the employees of the Milwaukee Coke and Gas Co.," states that "On the 29th day of March, in the year 1904, the Milwaukee Coke and Gas Company charged coal into the first five ovens of its new by-product coke plant, and two days later pushed the coke from those ovens."

Similarly, the documents do not appear sufficient to conclude that Honeywell should be liable as an arranger of disposal under CERCLA. In the Seventh Circuit, arranger liability requires an intent to arrange for disposal. *See Amcast Indus. Corp. v. Detrex Corp.*, 2 F.3d 746, 751 (7th Cir. 1993). *See also Burlington Northern and Santa Fe Ry. Co. v. U.S.*, 556 U.S. 599, 611 (2009) (arranger liability applies only when a party "takes intentional steps to dispose of a hazardous substance.") When a party is shipping a "useful product" to a facility that is processed into another product, and not trying to arrange for disposal of a hazardous substance, the party is not liable under CERCLA. *See Amcast Indus. Corp.*, 2 F. 3d at 751; *see also Hines*, 685 F. Supp. at 656 (finding that "the mere sale of [CCA and creosote] for use in the wood treatment process does not constitute arranging for the disposal or treatment of a hazardous substance, even when process run-off containing the substances is placed at the same site"). Here, it appears that Semet-Solvay may have constructed coke ovens and other equipment at the site, and then purchased from Milwaukee Coke and Gas the gas byproduct from the coking process. This kind of commercial relationship is not sufficient to establish arranger liability. *See Burlington Northern*, 556 U.S. 599.

In light of the paucity of the documents identified to date and the absence of compelling facts that would demonstrate that Honeywell is a potentially responsible party within those documents, Honeywell does not believe that EPA has established sufficient grounds to seek to require Honeywell to participate in the Site remediation at this time. We have initiated a review of Honeywell's archived historical files to ascertain whether there might be additional information with respect to the Site, and we are also prepared to review any additional information EPA may provide to us. We reserve our right to revise our position based on any additional information that may become available to us.

Please let us know if it would be useful to discuss this issue in greater detail.

Sincerely,

Jeremy Karpatkin

Enclosures:

Compact Disk: Conveyance Instruments, 311 E. Greenfield Avenue, Milwaukee WI (via federal express)
Solvay Life, November 1920
Solvay Life, January 1921
Solvay Life, February 1921
The Conveyor, March 1914

Solvay Life

Published Monthly by THE SOLVAY PROCESS and SEMET-SOLVAY COMPANIES
in the Interests of the Employes of the Syracuse, N. Y. and Hutchinson, Kansas, Plants

VOL. 1 SYRACUSE, N. Y., NOVEMBER, 1920 NO. 11

THE SEMET-SOLVAY SYSTEM OF BY-PRODUCT COKE MANUFACTURE

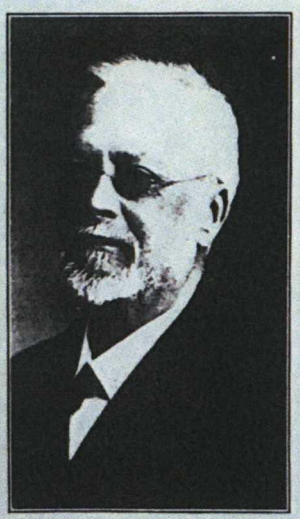
A History of The Development of The Semet-Solvay Coke Oven, Recovery of By-Products and The Semet-Solvay Company

PART ONE

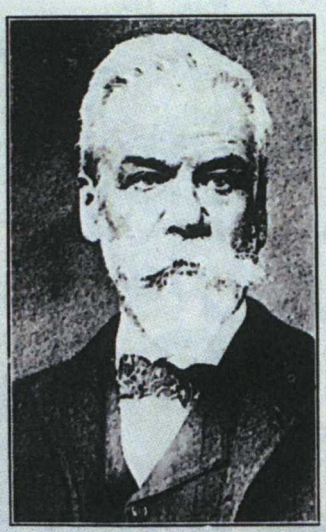
Editor's Note:—We are indebted to the Belgian interests of the Semet-Solvay Company for the data regarding the early history of the development of the Semet-Solvay Coke Oven. Many of the facts here given were contained in an address made by Mr. Armand Solvay, son of Ernest Solvay, at the funeral of Mr. Louis Semet, April 18, 1920.

INVENTION and EARLY DEVELOPMENT OF THE BY-PRODUCT COKE OVEN

LOUIS SEMET was the inventor of the Semet-Solvay Coke Oven. Like Ernest Solvay, he was a self-made man. He did not have the good fortune to carry on his studies to the high plane he desired as he was early in life forced to place himself in active industrial service. His great native ability and his energy and perseverance brought him to the place he filled at the time of his death.



LOUIS SEMET



ERNEST SOLVAY

Like Mr. Solvay, also, he started work at the Saint Josse Gas Works in Belgium, under the direction of Florimund Semet, uncle of both, and he at once showed there his great qualities as a man of practical affairs, having at the same time, aptitude and genius for technical matters.

It was, therefore, natural that Ernest Solvay, whose brother-in-law he had become, should think of Mr. Semet when the affairs of Solvay and Company began to develop to a large extent. In 1876 he entered the service of that organization.

Solvay and Company at that time was passing through a critical phase of its existence. Ammonia, which is so indispensable for the manufacture of soda ash, was getting scarce and it was feared that the supply might give out. It was obtained only from gas works and it was, therefore, necessary to find another source for this necessary product. Mr. Solvay had followed with interest the labors of Letoret, the first in Belgium to try to regain ammonia from gas resulting from the distillation of coal in the manufacture of metallurgical coke. It was here that he called Louis Semet to his aid and charged him with the duty of supplying the various plants of Solvay and Company with ammonia and also with the development of a system of coke ovens with by-product recovery.

It was first necessary to develop the existing supply. Under the energetic influence of Louis Semet, contracts were made with foreign countries, notably Holland, France and Italy, with different gas works to recover ammonia liquors. Apparatus was installed in the various countries for the concentration of these liquors so that they might be transported at lower freight rates.

At the same time the studies for a by-product coke oven were carried on in collaboration with Mr. Solvay and in 1882 the first experimental plant, consisting of six ovens, was built at the Western Colliery of Mons.

These first experiments having shown the success of the system, they were carried on in a battery of twenty-five ovens built at the Havre Colliery. Results there were so good as to encourage the Bois du Luc Company, owners of the coal mines, to take over this battery for its own use.

(Continued on page 32)

Semet-Solvay System of By-Product Coke Manufacture

(Continued from page 1)

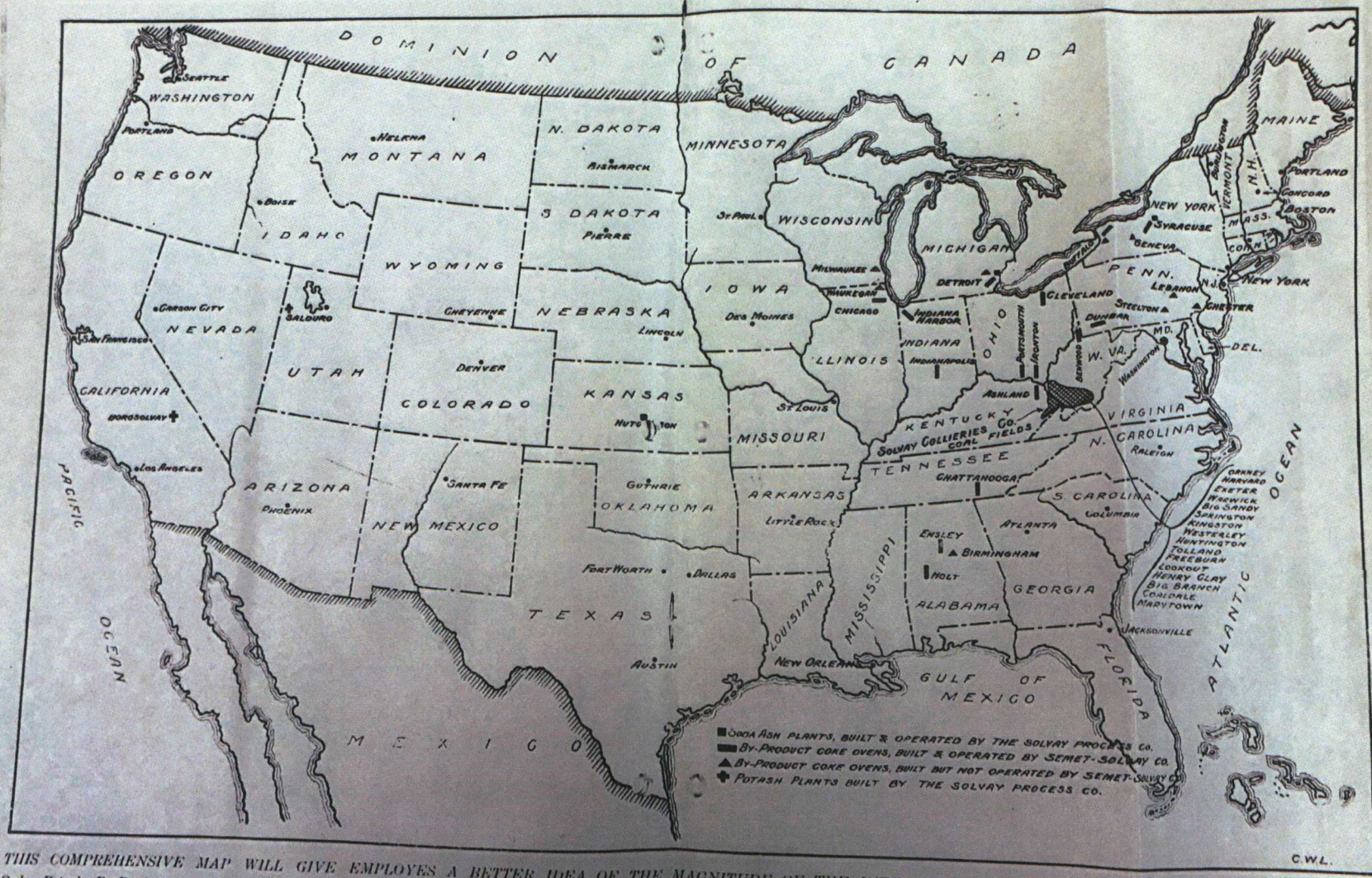
Thus success began. A special section was started in the organization of Solvay and Company to exploit this new system of coke ovens and a number of plants were rapidly developed throughout Europe and extended eventually to America.

"Louis Semet could well be proud of his work," said Armand Solvay in an address at the funeral of Mr. Semet at Ikelles, where he died April 15, 1920 at the age of 76 years. "It is now known all over the world and, developed by powerful companies, 6,316 ovens of his system exist at present in Belgium, England, America, France, Italy, Japan, Spain, Germany, Austria, Australia and the East Indies, producing annually 13,860,000 tons of coke. Louis Semet more than exceeded our expectations. He organized in a remarkable way the service, but his activity was not limited to this. He also aided the Directors in developing general affairs and participated in the elaboration of the charters for the foundation of our various companies and specialized in the study of financial questions which arose at that time."

Although the activity of Mr. Semet ceased in 1894, because of poor health, he was retained for many years on the Board of Directors of Solvay and Company and his advice was often sought in important matters. His life was always simple. He was extremely modest and declined all decorations but was, nevertheless, named a Knight of the Order of Leopold and of the Legion of Honor.

(To be continued)

INTERESTS OF SOLVAY COMPANIES EXTEND TO ALL SECTIONS OF THE UNITED STATES



THIS COMPREHENSIVE MAP WILL GIVE EMPLOYES A BETTER IDEA OF THE MAGNITUDE OF THE INTERESTS OF THE SOLVAY COMPANIES. Shown here are the Soda, Potash, By-Product and Coke Oven Plants of The Solvay Process and Semet-Solvay Companies and the Extensive Mining Holdings of the Solvay Collieries Company in West Virginia and Kentucky

Solvay Life

Published Monthly in the Interests of the Employes of THE SOLVAY PROCESS COMPANY, Syracuse, N. Y., and Hutchinson, Kansas, Plants; the SEMET-SOLVAY COMPANY, Syracuse, N. Y., and Wheeling, W. Va., Plants; the KENTUCKY SOLVAY COKE COMPANY, Ashland, Ky., THE PORTSMOUTH SOLVAY COKE COMPANY, Portsmouth, Ohio, and THE IRONTON SOLVAY COKE COMPANY, Ironton, Ohio.

VOL. 2 SYRACUSE, N. Y., JANUARY, 1921 No. 1

THE SEMET-SOLVAY SYSTEM OF BY-PRODUCT COKE MANUFACTURE

A History of The Development of the Semet-Solvay Coke Oven, Recovery of By-Products and the Semet-Solvay Company

PART THREE

(Continued from last month)

RAPID GROWTH OF SEMET-SOLVAY INTERESTS

THE period from 1898 to 1904 was one of great activity for the Company. It was extremely difficult to develop the organization fast enough to take care of the business. There were practically no men in the country trained in this industry who could be secured to fill out the organization and as a result every man connected with the development of the Company's interests was overworked. Often times it was very hard to see many things left but partly completed because other work called imperatively.

In 1898 a contract was secured with the National Tube Company, now part of the United States Steel Corporation, for a plant of thirty ovens to be constructed at Benwood, W. Va., just outside the city of Wheeling. Clarence Barber was the engineer placed in charge of this work. So satisfactory were the ovens that the following year another block of thirty were constructed and the plant again doubled in 1901 by the addition of another block of sixty ovens.

J. G. HAZARD

E. C. WITHERBY

The location of the Benwood plant in the Ohio Valley along the river of that name, presented many difficulties peculiar to that section, due to the vagaries of the Ohio. When the plant was first built, it was located well above the highest water ever known at Wheeling, but numerous times since the water has risen to higher and higher marks and flooded the plant. In several instances water has stood in the bottom of the ovens from a few inches to a foot in depth. The fact that this treatment did not ruin the ovens entirely is a tribute to their good design and construction.

W. O. Wood, who was superintendent of this plant from 1898 to 1917, worked out a special system to meet the flood conditions. Motors were erected so they could be loosened and hoisted to the roof trusses. Lime was loaded into cars and shifted to a safe place and the whole plant was ready to meet the emergency as soon as indications up the stream showed rising water.

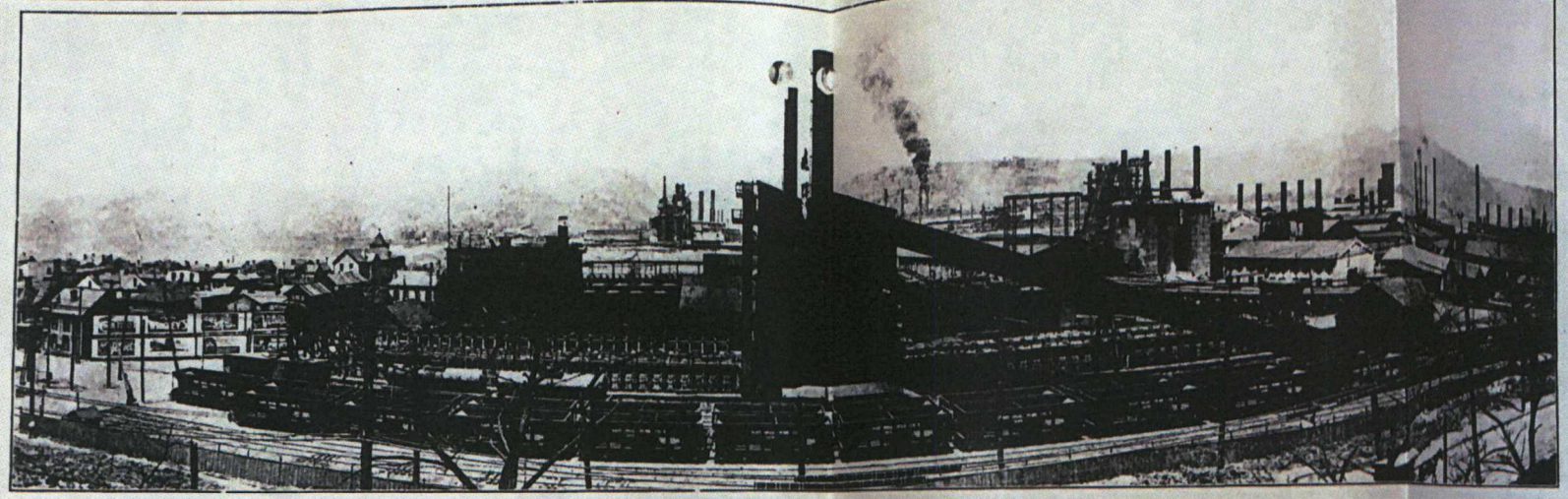
In 1901 it became necessary for the Solvay Process Company at the Detroit works, to meet similar conditions as confronted the Syracuse works and to supply that plant with ammonia, the Semet-Solvay Company constructed thirty ovens there during that year. Within three years this plant was enlarged by the addition of 90 more ovens.

A second block of 30 was added to this plant in 1902, 60 more in 1904, 12 in 1909 and 3 in 1912. All of these were of our old recuperator type. In 1913 we built block 5, consisting of 40 regenerator ovens, and block 6 of 40 ovens was started in 1917. The total of these numerous additions brought the plant up to 215 ovens and made it our largest plant, excepting Chicago.

From the first the plant was in charge of Mr. Warren S. Blauvelt as Superintendent, and under his direction many technical and engineering problems of importance to the industry were worked out there. In 1902 the plant first began supplying gas to the Detroit City Gas Company and many problems had to be solved to meet the requirements for the delivery of gas for city use. For years this plant has been delivering daily about 14,000,000 feet of gas for use in the city and has maintained with remarkable regularity very high specifications both in candle power and in calorific value. This plant has long held the record of delivering much the largest amount of oven gas for city use, as compared with any other plant in the country, which means anywhere in the world. Mr. Blauvelt resigned from

(Continued on page 20)

SEMET-SOLVAY COKE OVEN PLANTS NOW IN MANY CITIES OF COUNTRY



SEMET-SOLVAY COKE OVEN PLANT AT BENWOOD, W. VA.

This Plant, known also as the Wheeling, W. Va. Plant, is situated in Benwood, just outside the City of Wheeling. It was constructed in

SEMET-SOLVAY SYSTEM

(Continued from page 1)

the Company's service in 1916 to go into private business. During the war he was associated with Dr. Garfield in the Fuel Administration Bureau at Washington in the production and distribution of coke throughout the United States. He is now the President of the Indiana Coke & Gas Company at Terre Haute, Ind.

From 1902 to 1904 the Company completed and put in operation at the Syracuse works 10 additional ovens making a complete plant there of 40 ovens. During that same period several contracts were entered into and the plants completed and put in operation. Among these was an addition of 60 ovens at the Dunbar plant and 120 at Ensley.

A plant of 40 ovens was constructed at Chester, Pa., for the Philadelphia Suburban Gas Company to supply coke to the Tidewater Furnace Company and gas to the city of Chester. A plant of 80 ovens was constructed at Milwaukee, Wisconsin, for the Milwaukee Coke and Gas Company to produce merchant coke and gas for the city of Milwaukee. At Geneva, N. Y. a plant of 30 ovens was constructed to supply gas for the cities of Geneva and Auburn and the intervening villages of Seneca Falls, Waterloo and several smaller communities. At Lebanon, Pa., a plant of 60 ovens was built for the Pennsylvania Steel Company, now a part of the Bethlehem Steel Company.

During the construction of these plants many incidents of a humorous nature occurred which served to no little extent in relieving the pressure on the overworked forces.

The subject of a new employee getting tar on his skin has always been a source of much amusement to others and if the amusing part of this is not appreciated it is suggested that the reader try it out and see what happens. Probably the star case of this kind occurred during the construction of the Chester plant. A new employee fell into the tar tank and when he emerged he started running. From all that was ever learned he may be running yet as he never returned for his pay. This was duplicated, later at Chicago, when L. M. Whitwell, now vice-president of the Semet-Solvay Company, fell into a tank. He "stuck" around, however, and got his pay.

Many interesting men were developed during these days and no history, such as this is, would be complete without a reference to some of them.

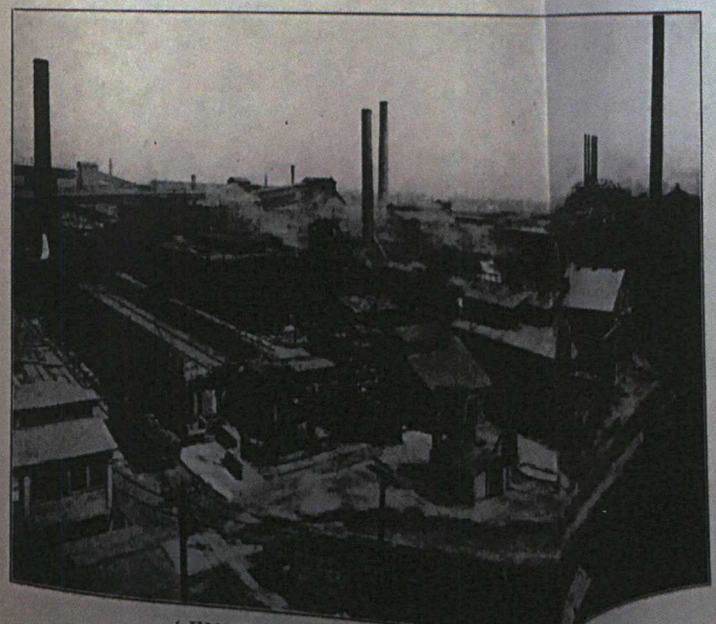
There was "Old Sid" for instance. "Old Sid," his name being A. C. Sidman, is known to a great majority of the Semet-Solvay employees, for it is safe to say that among the older men of the company at least 90 per cent received their early instructions from "Old Sid." It was mighty kindly instruction, too, and it is probable that as these men visit coke plants to-day, the sight of a flue plug and a pair of tongs, brings back memories of the long explanations from "Old Sid" as to how gas should be burned and how it should not.

Then there was Bert Patterson, or "Pat" as he was familiarly known to many of the old timers. He has taught scores of men to run A. C. apparatus and his appropriate sayings would fill a large book. It is well remembered on one occasion, when some embryo A. C. man with a fine scientific education but no notion of what he was doing, asked "Pat" certain fundamental questions about an A. C.

"Remember, young fellow," "Pat" replied, "the whole principle of distillation depends upon 'a hot bottom and a cold top.' You take care of that and the baby will behave all right. And further; an A. C. machine is just like a baby. If you keep these temperatures normal, you will never have any trouble but if you let the temperatures get away, that machine will be as cranky as any baby you ever saw."

During these years two young men entered the Company's employ, with every prospect of many years valuable work with the Company, but death has taken them, and we are still suffering from

(Continued on page 24)



SEMET-SOLVAY PLANT AT DETR

SEMET-SOLVAY SYSTEM

(Continued from page 20)

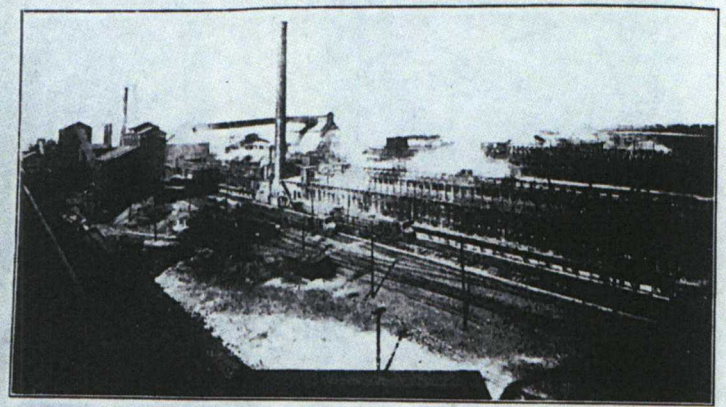
their loss both as companions in business and as friends.

In May, 1898, E. C. Witherby entered the Company's employ, having recently completed a post graduate course at the Massachusetts Institute of Technology. He began as A. C. man, and as years went by, he rose through various steps of Assistant Superintendent, General Superintendent and General Manager, to the Vice Presidency, which office he held until his lamented death on February 23, 1919. His early death was a great loss to the Company, both on account of his thorough knowledge of all the technical operations of the coking industry, and because of his ability and sound judgment as a business man. He was liked and admired by every man in the Company who knew him.

John G. Hazard was another officer of the Company who entered its employ about a year later than Mr. Witherby, and his first work was as chemist in the Company's laboratories. He was twice compelled by ill health to leave his work during the first years of his promotion with the Company, and between 1902 and 1904 he was absent about two years. For many years he was the Company's Secretary, and devoted most of his time to the commercial side of the Company's business. He was later elected as cne of the Vice Presidents, which position he held when he died on December 27th, 1918. Although he was naturally retiring, every one who knew him was his friend, both among his business associates and in his social life. He too will always be missed from our organization and all feel that his early death was a great loss, both to the organization and to his personal friends.

(To be continued next month.)

SEMET-SOLVAY PLANTS FAMILIAR SIGHTS IN MANY CITIES



SEMET-SOLVAY COKE OVEN PLANT OF THE BY-PRODUCTS COKE CORPORATION, SOUTH CHICAGO, ILL. Largest Semet-Solvay Plant Built

SEMET-SOLVAY SYSTEM

(Continued from page 1)

The Chicago plant supplies coke to the Federal and Iroquois furnaces and the general merchant trade in Chicago. Its surplus gas is sold to the Peoples Gas Light and Coke Company for distribution in the city. Although this plant is owned by the By-Products Coke Corporation, it has always been operated under the supervision of the Semet-Solvay Company. William H. Allen, Jr., is the superintendent in charge.

In 1906 a plant of 40 ovens was constructed for the Pennsylvania Steel Company at Steelton, Pa. and the following year was enlarged by the addition of 80 more ovens. In 1910 forty-nine ovens were built at Cleveland, Ohio, for the Cleveland Furnace Company.

In 1912 the company built a small plant of 15 ovens for the North Shore Gas Company at Waukegan, Ill. This was built primarily to supply gas to the district on the north shore of Lake Michigan and was notable in that it was fired with hot producer gas from the producers located below and directly in front of the ovens. This was the first plant of ovens in this country to be fired in this manner and it continues to operate to the satisfaction of its owners, although the Company never had the opportunity to thoroughly work out all the technical and operative problems connected with this method of firing.

During this period, also, the Company perfected the present type of six-high oven, which is now regarded as the standard. This oven has the largest capacity of any in the world and the extension of the principle of the horizontal flue system, from a type of oven having four and one-half tons capacity to one capable of holding 16 tons, with a coking time almost 100 per cent faster than was at first required is a great tribute to the fundamental soundness of the original principle and design.

While the interests of the Semet-Solvay Company were growing, the by-product industry as a whole was making notable progress. In 1915 the total production of by-product coke in the United States was 12,715,000 tons, which was 27.5 per cent of the total coke produced. By 1918, the 1913 figures were practically doubled. In October of that year the production of by-product coke passed that produced by the bee-hive type of oven for the first time. The by-product coking industry is now definitely established as the principal source of coke for all purposes, although there is no doubt that bee-hive coke will be produced for many years to come.

From 1913 to 1916 about 2,200,000 tons were added to the annual coking capacity of Semet-Solvay plants, the total being a little under 10,000,000 tons per year. The last block of 40 ovens was started at Chicago and the last 40 at Detroit.

(To be continued)

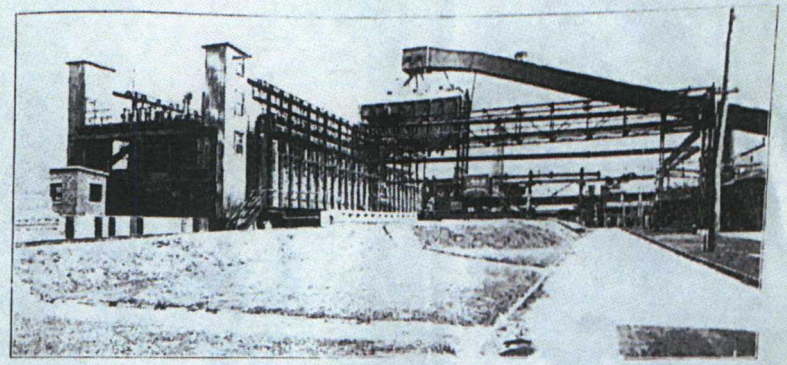
The Great Optimist

(An old story in a new dress)

A CHEERFUL man was Peter Wicks, who's reached the age of four score six, and neighbors came for many a mile to drink the sunshine of his smile. When Peter couldn't get about, from rheumatism and the gout, instead of grim despondency, he thought how "restful" 'twas to be. And when no longer he could read, he'd tell at wonders that he'd "seed", and deafness wasn't "nuthin' tell," it simply meant a "quiet spell." Old Pete'd left but just two teeth,—an upper and the one beneath,—but life to him was good and sweet; he thanked the Lord the teeth did meet.

The great idea for you and me in this old man's philosophy is—if we have a cheerful mind, our clouds will all be silver lined.

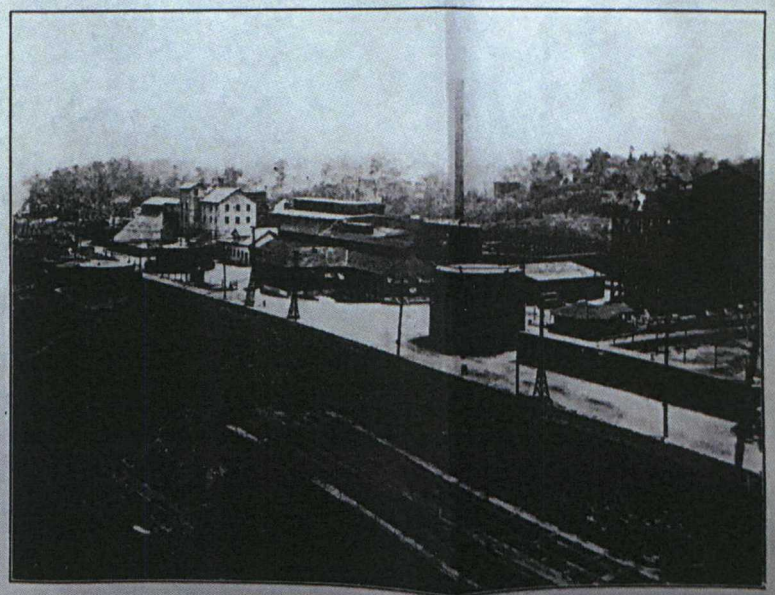
ROBERT STEWART SUTLIFFE,
in Telephone Review.



ON THIS PAGE ARE SHOWN TWO SEMET-SOLVAY PLANTS SITUATED IN THE SUNNY SOUTH.

ABOVE IS THE PLANT AT CHATTANOOGA, TENN., AND, BELOW THAT AT HOLT, ALA.

THE EMPLOYES OF THESE PLANTS ARE, BEGINNING WITH THIS ISSUE, MEMBERS OF SOLVAY LIFE'S FAMILY.



Solvay Life

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VOL. 2 SYRACUSE, N. Y., FEBRUARY, 1921 No. 2

THE SEMET-SOLVAY SYSTEM OF BY-PRODUCT COKE MANUFACTURE

A History of The Development of the Semet-Solvay Coke Oven, Recovery of By-Products and the Semet-Solvay Company

PART FOUR

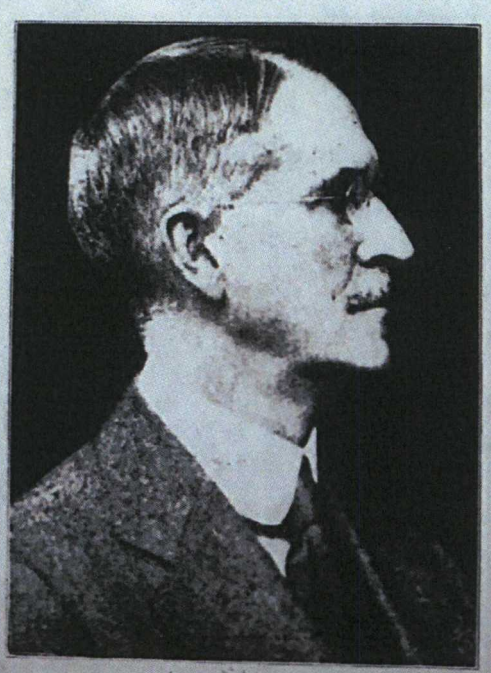
(Continued from last month)

Process is Perfected and Technical Improvements Made

FOLLOWING the close of the year 1904 there came a period of comparative quiet in the development of the company, a period which was, however, welcomed, as it gave an opportunity for the perfection of the organization and for a thorough study of costs, methods and design, all of which were necessary.

Numerous technical improvements were made in the apparatus during this period, including the introduction and perfection of the well known "A" apparatus for the cooling and scrubbing of the oven gas, improvements in the processes for manufacturing pure ammonia and sulphate and the development of the regenerator oven. Perhaps this last was the most radical improvement made during this period. The first block of regenerator ovens was built in Detroit in 1913 and its success has resulted in the adoption of this type as a Semet-Solvay standard.

Development of the company and its interests in all sections of the country was rapid during the ten years, 1905 to 1915. Many changes were made necessary in the operating officials and in the personnel. Rowland G. Hazard, first president of the company was lost through death in 1915 and he was succeeded by H. H. S. Handy, who still is at the head of the organization.



H. H. S. HANDY

Many additions were made to existing plants, including 80 more ovens at Milwaukee for the Milwaukee Coke and Gas Company; 30 ovens at Lebanon for the Pennsylvania Steel Company and 16 to the plant of the Empire Coke Company at Geneva, N. Y.

Work on the Chicago plant of the By-Products Coke Corporation, the largest plant built or operated by the Semet-Solvay Company, was started in 1905 when 120 ovens were installed. In each of the years, 1906, 1910, 1912 and 1913, blocks of 40 more ovens were added bringing the total plant up to 280 ovens.

The Chicago plant has the largest capacity of any of the Semet-Solvay coke oven plants. Many new problems had to be solved in its construction. It was the first plant in the country to employ belt conveyors in the comparatively long distance transportation of coal from the unloading dock to the storage pile and oven bins, and also the conveying of coke through the preparation plant to the cars. There are about two and two-thirds miles of conveyor at this plant, which, of course, means double that amount of belting.

The design and construction of the plant was in charge of Charles L. Griffin, now assistant chief engineer of The Solvay Process Company. He was at that time chief draftsman for the Semet-Solvay Company. The construction work was done under the supervision of W. T. Snively under the general direction of W. L. Keen, superintendent of construction for the Company.

(Continued on page 20)

THE CONVEYOR

Published monthly in the interests of, and for free distribution among, the employees of The Milwaukee Coke and Gas Co., under the direction of J. W. Shaeffer, Superintendent.

Communications, suggestions, kicks—anything you want your paper to know about—should be placed in the "Contribution Box," which you will find at the following offices: Main, Time, Coal Handling, Ovens, Coke Handling, Shops, and Dock.

Volume I | MARCH, 1914 | Number 3

TEN YEARS OF OPERATION

BY GEO. E. BURD.

Ten years ago this month, in the heart of a swamp at the foot of Greenfield Avenue, there was born a new industry for Milwaukee. A few short months before that time, the site of that historic spot had been a favorite haunt of ducks and duck-hunters, and the happy home of frogs innumerable, who could be heard in the long summer evenings croaking their weird chant. In the season when the waters of the swampy bay were locked with ice, Milwaukee boys found it an excellent skating ground, and we have no doubt that here Charlie Turner, Jim McGuigan, Jack Fitzgerald and others could often be found cutting figure eights, and doing the long, graceful glide for the benefit of certain members of the fair sex watching them.

Be that as it may, this much is certain. A small army of construction engineers one day descended upon this peaceful, picturesque place, and proceeded to drive huge sixty-foot piles down through the slime to the solid (?) earth below, and to build upon them, not a Venice with its graceful gondolas gliding in and out of watery lanes, but a stern, twentieth-century industrial plant, destined to light the homes and warm the hearths of the city of Milwaukee.

On the 29th day of March, in the year 1904, the Milwaukee Coke and Gas Company charged coal into the first five ovens of its new by-product coke plant, and two days later pushed the coke from those ovens.

It is left to the imagination of those of us of later days to depict the scenes attending the charging of those first ovens. Did the president's fair daughter break a bottle of wine over the standpipe of the first oven? Or did some official gifted with oratorical powers grace the occasion with a speech calling forth a blessing upon the infant plant? Probably not. It is more likely that when the eventful moment arrived, some foreman quietly gave the signal, and four husky workmen trundled four little cars of coal out from the bins and unceremoniously dumped them into the oven, thus marking, without a flourish, the consummation of months of preliminary toil, of puffing pile-drivers, clanging roaring riveting-hammers, and the soft scraping of masons' trowels.

There is little about the plant now to remind old-timers of that day. Then there were only 80 ovens, and for the first three months only 40 of those were operated. They were much smaller than the present ovens, having only four horizontal heating flues, and were known technically as "four-highs." Although they held only 7½ to 8 tons of coal, the charging of them was something of a feat. The coal arrived at the ovens in 4 small, man-propelled cars on separate tracks, one over each charging hole. After their contents had been run into the ovens the real labor of the operation took place, when the levelers started their work. The leveling "machines" were also man-propelled, and resembled very much the hoes used today to dig out stuck ovens. The leveling was done both from the front and the back, the front men standing on a platform on the pusher, while the back men worked from the high deck of a small handcar on the quenching track. It used to be a common occurrence for this car, which was also used to carry mud, to be boosted bodily off the track by a swiftly-moving quenching car, whose operator had misjudged the distance, or become lost in the steam.

The labor of hand leveling was extremely fatiguing, and the shift foremen had a great deal of trouble keeping men on that job, so we may well believe that the advent of the electric power leveling bar in 1906 was hailed with delight. Shortly before that time, the hand-charging cars had been superseded by the present electric larry.

In April, 1906, the capacity of the plant was doubled, by starting up the new addition of 80 ovens, the present blocks 1 and 2, and was still further increased later during the period from November, 1906, to October, 1907, when all the ovens were gradually converted into "five-highs," holding 9.5 to 10 tons.

The coal for the ovens at that time was loaded into cars at the dock, by the fast-plants, and these cars were then spotted over a hopper at what is now

the north end of the circle track, and the coal dumped upon a belt conveyor which led to a crusher. From the crusher the coal, still quite coarse, was carried by another belt conveyor up over the by-product building, and fed down through a rotary screen to the pulverizer on the ground floor of the coal-bin building. From there it was raised by a bucket hoist to the bin above, and was forced back into the bin by a screw conveyor. This outfit had to be kept running day and night, as the bin held only enough coal to last two hours.

The coke handling plant was very simple. Instead of the trestle that we have now, the unloading track was at ground level and the coke was dumped from the quenching cars to the ground, picked up in wheelbarrows, and transferred to box cars. Later on, when the trestle was built, the coke was dumped on the platform, and forked by hand down through chutes into the box cars. The present labor-saving carloading tipple was not built until 1907.

Instead of making a complete circuit, as the cars do now, electric locomotives took the quenching cars south on the outer track, where they switched, and came in on the quenching track to get their load. By this arrangement there could be only one car back of the ovens at a time. While the present domestic coke handling building was being erected, there was a temporary establishment in use, to take care of that part of the business, located where the light oil building now stands.

In the first by-product building the engines and exhausters, of which there were three, were on the ground floor. The gas discharged into three coolers, known as I. C. G.s, similar to the present lean condensers, then through three tower ammonia washers, known as L. G.s. A peculiar feature about those washers was that naphthalene used to form in them in little round balls, and very often one of these little balls would roll down into the liquor outlet, and plug it up.

The weak ammonia liquor from the L. G.s ran down through a seal pot into a collector tank in the basement, from which it was pumped by two small, belt-driven centrifugal pumps out to the decanters. The basement was very wet at all times. There was a sump to collect the water, steam syphons being used to carry it out, and very often the syphons refused to work. At such times the water would accumulate until it came up to the pulleys of the pumps, throwing the belts off. Then the weak liquor tank would run over, making matters worse, and the apparatus man and engineer would have to wade around in rubber boots, trying to keep the belts on until the syphons could be made to work.

The north C. G. building was much the same as it is today, except for the location of some of the tanks. The circulating liquor tank stood out-of-doors at the northeast corner, and the final weak liquor collector tank lay partly inside and partly outside of the building, near the present position of the tar pan.

Such was the plant in bygone times. A whole volume could be filled with stories of the veterans of those days—stories of struggle, trials and hardships, interwoven with tales of humorous incidents which now and then relieved the tension under which all labored.

Emmet Mullen tells of huge rats, some of them as large as half-grown cats, that used to infest the swamp, and sometimes boldly walk off with the men's lunches, if they were not careful.

Only a handful of the pioneers of the first year are with us today—J. F. Blackie, A. E. Winkel, Geo. Lett, W. C. Springer, S. C. Bird, Emmet Mullen, Pat McArdle, and possibly one or two others about whom the old-timers are uncertain, and though the stormy times of those days are gone forever, probably there is not a single one of these men who does not treasure the rich and varied experience gained.

One of the occurrences of those days was startlingly dramatic. At exactly 4:20 p. m., May 24, 1906, only a short time after our genial night superintendent, Mr. Geo. Lett, then a shift foreman, had regretfully removed and consigned to his locker in the by-product building a brand-new suit of clothes and donned his working togs, the peace of the Sabbath afternoon was rudely shattered by a terrific crash. Mr. Lett ran out from under the coal bins, and looking toward the by-product building, he could scarcely believe his eyes when he saw that the entire interior of the building was a seething mass of flames, which belched out of all the open windows and doors. His first thought was for the engineer and apparatus man. Leaping down the stairs, he dashed across the pusher track, and crawled into the nearest doorway to look for them, but no one was to be seen. Realizing that if the engines could be stopped the flames would subside, Mr. Lett then ran to the main steam valve above the boilers. When he had closed this valve about half-way, it became stuck, and refused to go further. Calling to a passing mechanic to get a wrench and apply it to the valve, Mr. Lett then sprinted to the valve in the city gas main near the old drafting-room, and closed it, to prevent gas backing up from the city main in case the roof of the by-product building should fall in and break the city gas main there. All this was a matter of but a few moments, but the appalling swiftness of the fire was shown by the fact that ten minutes after the explosion occurred the conveyor housing above the building tottered and crashed through the roof, and by the time the city fire department arrived the entire roof had fallen in, and only a shell remained of the building.

The story is told, that at the time of the explosion a group of masons were working on the top of the ovens, and that when the crash came they immediately

started due north, touching only the high spots until they reached the front gate, and in the vanguard were Henry Senkpiel and George Seegar, each still firmly grasping a brick and a trowel.

Some idea of the growth of the plant and of the progress made during the ten years may be gained from the following table.

Year	Ovens Pushed	Tons of Coal Charged
1904	18,088	132,225
1905	30,707	219,671
1906	45,040	325,133
1907	55,975	509,042
1908	53,990	519,617
1909	61,576	590,819
1910	69,997	672,707
1911	80,486	770,839
1912	88,647	832,983
1913	90,864	847,469

The table by no means tells all of the story, however. The history of the plant has been a continuous record of improvement of operation, of development of methods, of building new buildings, of adding new equipment, and of the perfecting of the organization. As our superintendent said in the first issue of the "Baby," no one man can claim responsibility for the advancement made, and every one who at all times has striven to do his best, no matter how apparently unimportant his work, may justly feel that he has had a part in adding to the progress of the institution. We are a long way from perfection yet; and we hope that as the years roll by, our climb will be ever upward. But it is a far cry from the fledgeling plant of those early days, with its flimsy, ramshackle buildings, inadequate, ill-arranged machinery, and soggy, untidy grounds, to the neat, orderly plant of today, with its handsome, substantial buildings, efficient equipment, and velvety, green lawns, dotted with flowers and shrubs. Truly, time hath worked wonders!

Chemists are a strange class of mortals impelled by an almost insane impulse to seek their pleasure among smoke and vapor, soot and flame, poisons and poverty, yet among all these evils I seem to live so sweetly, that may I die if I would change places with the Persian King.

"Physica Subterranea."

Mr. Warren S. Blauvelt, Superintendent of Coke Ovens, The Solvay Process Co., Detroit, Mich., was a visitor recently.

Frank Mitchell says that Quality is Economy.

J. F. Blackie.....Editor

INCREASE IN BY-PRODUCT COKE

In his revised report on "The Manufacture of Coke in 1912" issued by the United States Geological Survey, Mr. Edward W. Parker states that in 1912 as in 1911, the most significant feature of the coke-making industry of the United States was the progress shown in the construction of by-product ovens and the increase in the production of by-product coke.

The number of by-product ovens in operation increased from 4,624 in 1911 to 5,211 in 1912, a gain of 587; whereas the total number of all ovens decreased from 103,879 to 102,230, indicating that there were 2,236 fewer beehive ovens in existence in 1912 than in 1911. Some new ovens of the beehive type were built in 1912, but the number abandoned exceeded all the new ones, by 1,649, which represented the decrease in the total number of ovens.

Blast furnace coke of the beehive oven type sells at a much lower figure than by-product coke. The best grades of spot beehive coke, those from the Connellsville region in Pennsylvania, sold at the following average prices per ton at the ovens: 1908, $1.70; 1909, $1.92; 1910, $1.77; 1911, $1.48; 1912, $2.55. By-product coke in 1908 averaged $3.44; in 1909 $3.27; in 1910 $3.47; in 1911 $3.48; in 1912 $3.84. The average price of beehive coke during the five years was $1.88, as against an average of $3.50 for by-product coke.

It should be borne in mind, of course, that the question of freight rates enters into the ultimate cost to the consumer.

—The Gas Record.

There are three varieties of phewls:
Solid phewls—also called boneheads;
Liquid phewls—or sapheads;
Gaseous phewls—who rely on hot air.

CHICAGO TITLE COMPANY

20825 Swenson Dr., Suite 200
Waukesha, WI 53186
Phone: (262)796-3800 / Fax: (262)796-3888

Commonwealth Land Title Insurance Company
101 Merritt Boulevard, Suite 208
Trumbull, CT 06611
Attn: Sandra K. Fitzpatrick

Letter Report No.: CO-5759 (Revision A)

Dear Sir/Madam:

We find that the grantee named in the latest recorded conveyance of the real estate described below is:

Golden Marina Causeway, LLC, a Wisconsin limited liability company

Legal Description:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

Tax Key No.: 463-9995-200-X

Property Address: 311 E. Greenfield Avenue

We find the following conveyance instruments affecting the subject premises recorded in the office of the Register of Deeds for Milwaukee County, Wisconsin subsequent to January 1, 1880:

Warranty Deed recorded as Document No. 34246 - to John Suhm.
Warranty Deed recorded as Document No. 39607 - to Robert P. Fitzgerald and John B. Merrill.
Quit Claim Deed recorded as Document No. 41067 - to Wisconsin Leather Company.
Tax Deed recorded as Document No. 43315 - to Herman F. Buelow.
Quit Claim Deed recorded as Document No. 43317 - to W.F.C. Gable.
Quit Claim Deed recorded as Document No. 44389 - to George Derfus.
Deed recorded as Document No. 46964 - to The Chicago, Milwaukee & St. Paul Railway Company.
Deed recorded as Document No. 50969 - to The Chicago, Milwaukee & St. Paul Railway Company.
Warranty Deed recorded as Document No. 50970 - to The Chicago, Milwaukee & St. Paul Railway Company.
Warranty Deed recorded as Document No. 53274 - to Robert P. Fitzgerald and John B. Merrill.
Warranty Deed recorded as Document No. 56004 - to Oliver P. Pillsbury, William H. Bradley, Edward Bradley and James W. Bradley.
Warranty Deed recorded as Document No. 56232 - to Oliver P. Pillsbury, William H. Bradley, Edward Bradley and James W. Bradley.
Warranty Deed recorded as Document No. 56541 - to Oliver P. Pillsbury, William H. Bradley, Edward Bradley and James W. Bradley.
Quit Claim Deed recorded as Document No. 57380 - to Oliver P. Pillsbury, William H. Bradley, Edward Bradley and James W. Bradley.
Warranty Deed recorded as Document No. 57391 - to The R. Suhm Leather Company.
Warranty Deed recorded as Document No. 60648 - to Oliver P. Pillsbury, William H. Bradley, Edward Bradley and James. W. Bradley.
Deed recorded as Document No. 61107 - to William H. Bradley, Edward Bradley, James W. Bradley, David M. Benjamin and Oliver P. Pillsbury.
Quit Claim Deed recorded as Document No. 61108 - to William H. Bradley, Edward Bradley, James W. Bradley, David M. Benjamin and Oliver P. Pillsbury.
Quit Claim Deed recorded as Document No. 63637 1/2 - to The Penobscott Lumber and Dock Company.
Quit Claim Deed recorded as Document No. 77781 - to The Penobscott Lumber and Dock Company.

Warranty Deed recorded as Document No. 81562 - to the City of Milwaukee.
Deed recorded as Document No. 81575 - to the North Chicago Rolling Mill Company.
Warranty Deed recorded as Document No. 139116 - to The Milwaukee Bridge and Iron Works.
Warranty Deed recorded as Document No. 174401 - to Augustus F. Riddell.
Warranty Deed recorded as Document No. 174402 - to William H. Keepers.
License recorded as Document No. 205726 - to James C. Ricketson.
Executor's Deed recorded as Document No. 214108 - to North-western Railway Company.
Warranty Deed recorded as Document No. 215315 - to Albert E. Smith.
Quit Claim Deed recorded as Document No. 216050 - to Serial Investment Association.
Warranty Deed recorded as Document No. 221747 - to The Milwaukee Street Railway Company.
Warranty Deed recorded as Document No. 255570 - to John J. Suhm.
Deed recorded as Document No. 255595 - to the Suhm Leather Company.
Quit Claim Deed recorded as Document No. 271628 - to The Minerva Iron Company.
Deed recorded as Document No. 290548 - to The Milwaukee Street Railway Company.
Declaration of Trust recorded as Document No. 290549 - to The Milwaukee Street Railways Company.
Deed recorded as Document No. 290550 - to Charles A. Spoffard.
Deed recorded as Document No. 298229 - to William Nelson Gromwell, Arnold Marcus, Charles H. Wetmore, Benjamin K. Miller, Jr., Frank G. Bigelow and Charlee F. Pfister.
Deed recorded as Document No. 298374 - to William Nelson Gromwell, Arnold Marcus, Charles H.. Wetmore, Frank G. Bigelow, Charlee F. Pfister and Benjamin K. Miller, Jr.
Deed recorded as Document No. 298815 - to William Nelson Gromwell, Arnold Marcus, Charles H. Wetmore, Benjamin K. Miller, Jr., Frank Bigelow and Charlee F. Pfister.
Deed recorded as Document No. 306955 - to the Milwaukee Electric Railway and Light Company.
Deed recorded as Document No. 323094 - to the Milwaukee Electric Railway and Light Company.
Quit Claim Deed recorded as Document No. 323095 - to the Milwaukee Electric Railway and Light Company.
Deed recorded as Document No. 341207 - to Henry Newcomb, Trustee.
Deed recorded as Document No. 348398 - to the Illinois Steel Company.
Trustee's Deed recorded as Document No. 349766 - to Henry Newcomb, Trustee.
Deed recorded as Document No. 368864 - to the Chicago and North Western Railway Company.
Warranty Deed recorded as Document No. 421018 - to Margaret Thomas.
Warranty Deed recorded as Document No. 429357 - to Fred Vogel, Jr.
Warranty Deed recorded as Document No. 458399 - to the Milwaukee Coke and Gas Company.
Warranty Deed recorded as Document No. 458963 - to the Milwaukee Coke and Gas Company.
Sheriff's Deed recorded as Document No. 461951 - to Citizens Trust Company.
Quit Claim Deed recorded as Document No. 470005 - to Pere Marquette Railroad Company.
Warranty Deed recorded as Document No. 550723 - to Walter A. Zinn.
Deed recorded as Document No. 576058 - to The Thomas Furnace Company.
Warranty Deed recorded as Document No. 594935 - to the City of Milwaukee.
Warranty Deed recorded as Document No. 626475 - to United States of America.
Deed recorded as Document No. 910660 - to Pere Marquette Railroad Company.
Sheriff's Deed recorded as Document No. 1551823 - to the Milwaukee Blast Furnace Company.
Marshall's Deed recorded as Document No. 1759710 - to the Milwaukee Blast Furnace Company.
Tax Deed recorded as Document No. 1966183 - to John I. Drew.
Warranty Deed recorded as Document No. 2018827 - MISTYPED - NOT TO BE INCLUDED.
Warranty Deed recorded as Document No. 2105952 - to Pere Marquette Railway Company.
Warranty Deed recorded as Document No. 2108827 - to Pere Marquette Railway Company.
Quit Claim Deed recorded as Document No. 2264437 - to the City of Milwaukee.
Warranty Deed recorded as Document No. 2472006 - to Pere Marquette Railway Company.
Deed recorded as Document No. 2725903 - to Chesapeake and Ohio Railway Company.
Quit Claim Deed recorded as Document No. 2807859 - to Chesapeake and Ohio Railway Company.
Final Decree recorded as Document No. 2816790 - to the City of Milwaukee.
Warranty Deed recorded as Document No. 3952124 - to Wisconsin Coke Company, Inc.
Warranty Deed recorded as Document No. 3954142 - to Wisconsin Coke Company, Inc.
Quit Claim Deed recorded as Document No. 4420643 - to the Chesapeake and Ohio Railway Company.
Quit Claim Deed recorded as Document No. 4420644 - to Pickands Mather & Co.
Quit Claim Deed recorded as Document No. 4421152 - to the Chesapeake and Ohio Railway Company.

Quit Claim Deed recorded as Document No. 8448895 - to Water Street Holdings, L.L.C.
General Assignment recorded as Document No. 8448896 - to Water Street Holdings, LLC
Quit Claim Deed recorded as Document No. 8449285 - to Golden Marina Causeway, LLC
Affidavit recorded as Document No. 8550681 - to Water Street Holdings, LLC

This report does NOT Include open Mortgages, Leases, docketed Judgments, State Tax Warrants, Federal Tax Liens, Construction Liens or outstanding Real Estate Taxes.

Dated this 28th day of December, 2016 at Milwaukee County, Wisconsin, the effective date hereof.

This Report is for informational purposes only. This report is not an abstract of title or a title insurance commitment or policy and should not be relied upon in place of such. It is not the intention of Chicago Title Company to provide any type of express or implied warranty, guaranty, or indemnity with respect to the accuracy or completeness of the information contained in the report. If this report is to be used by the customer as the search required in order for the customer to issue a title insurance commitment or policy, or if the information contained in this report is resold, the customer does so at their own risk. In order to obtain information from the company which will carry the full liability of a title insurance commitment or policy, Chicago Title Company will issue, if requested, a commitment of title insurance and will charge a fee in compliance with rates filed with the Office of the Commissioner of Insurance.

Sincerely,
CHICAGO TITLE COMPANY

Commercial Examiner
Examiner
WICommercial@ctt.com

Enclosure(s)

EXHIBIT "A"

Legal Description

That part of the Northwest 1/4 and the Southwest 1/4 of Section 4 in Town 6 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, which is bounded and described as follows: Commencing at a point in the South line of the Northwest 1/4 of said Section 40.00 feet South 89° 47' 45" East of the Southwest corner of the Northwest 1/4 of said Section; running thence North 00° 46' 58" East on a line which is 40.00 feet East of and parallel to the West line of the Northwest 1/4 of said Section 333.35 feet to the Southwest corner of Lot 14 in partition of that part of the Northwest 1/4 of Section 4, in Town 6 North, Range 22 East, which lies West of the 1/4 Section line; thence South 89° 47' 45" East along the South line of Lot 14 aforesaid 50.00 feet to a point; thence North 00° 46' 58" East along the East line of Lot 14 aforesaid 151.42 feet to the Northeast corner of said Lot 14; thence South 89° 47' 45" East along the South line of Lot 7 in said Subdivision 26.00 feet to a point; thence North 00° 46' 58" East along a line which is 116.00 feet East of and parallel to the West line of the Northwest 1/4 of said Section 455.75 feet to a point which lies 200.00 feet North 00° 46' 58" East of the South line of Lot 5 in said Subdivision; thence South 56° 39' 10" East 365.79 feet to a point in the South line of said Lot 5 which is 424.30 feet East of the Southwest corner of said Lot 5; thence South 74° 49' 58" East 464.11 feet to a point in the dock lines of the Kinnickinnic River; thence South 20° 59' 55" West along the dock line of the Kinnickinnic River 3.93 feet to a point; thence South 16° 11' 31" West along the dock line of the Kinnickinnic River 296.93 feet to a point; thence South 20° 45' 27" West along the dock line of the Kinnickinnic River 354.07 feet to a point in the South line of the Northwest 1/4 of said Section, said point being 672.66 feet South 89° 47' 45" East of the Southwest corner of the Northwest 1/4 of said Section; thence South 17° 29' 34" West along the dock line of the Kinnickinnic River 343.01 feet to a point; thence South 60° 49' 25" West along the dock line of the Kinnickinnic River 42.79 feet to a point in the North line of the South 50.00 feet of Lot 1 in the Subdivision of the West 1/2 of the Southwest 1/4 of Section 4, in Town 6 North, Range 22 East, County of Milwaukee, State of Wisconsin; thence South 89° 47' 45" East along the North line of the South 50.00 feet of Lot 1 aforesaid 30.75 feet to a point in the old established dock line of the Kinnickinnic River; thence South 17° 29' 34" West along the old established dock line of the Kinnickinnic River 6.00 feet to a point; thence South 55° 44' 25" West along the old established dock line of the Kinnickinnic River 427.24 feet to a point thence North 21° 28' 30" West along a line which is 44.00 feet Northeasterly of and parallel to the Northeasterly line of South Kinnickinnic Avenue 57.58 feet to a point in the dock line of the Kinnickinnic River; thence South 60° 49' 25" West along the dock line of the Kinnickinnic River 44.40 feet to a point in the Northeasterly line of South Kinnickinnic Avenue; thence North 21° 28' 30" West along the Northeasterly line of South Kinnickinnic Avenue 232.30 feet to a point in the North line of the South 50.00 feet of Lot 1 in the Subdivision of the West 1/2 of the Southwest 1/4 of Section 4; thence South 89° 47' 45" East along the North line of the South 50.00 feet of Lot 1 aforesaid 47.35 feet to a point; thence North 21° 28' 30" West along a line which is 44.00 feet Northeasterly of and parallel to the Northeasterly line of South Kinnickinnic Avenue 199.62 feet to a point which is 40.00 feet East of the West line of the Southwest 1/4 of said Section; thence North 00° 53' 55" East along a line which is 40 feet East of and parallel to the West line of the Southwest 1/4 of said Section 163.01 feet to the point of commencement.

Being Lots 13 and 17 and part of Lots 5, 7, 8, 9, 10, 11 and 12 in partition of that part of the Northwest 1/4 of Section 4, in Town 6 North, Range 22 East, which lies West of the 1/4 Section line and part of Lots 1 and 2 in Subdivision into Lots of the West 1/2 of the South 1/4 of Section 4, in Town 6 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

ALSO;
That part of Lots 2, 3, 4, 5 and 7 in the partition of that part of the Northwest 1/4 of Section 4 in Town 6 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, lying West of the 1/4 Section line which lies within the limits of the following described parcel of land: Commencing at a point in the North line of said 1/4 Section 116.01 feet North 89° 56' 29" East of the Northwest corner of said 1/4 Section; running thence North 89° 56' 29" East along the North line of said 1/4 Section 1460.07 feet to a point in the Westerly dock line of the Kinnickinnic River; thence South 21° 32' 49" West along the Westerly dock line of the Kinnickinnic River 842.70 feet to a point; thence South 89° 25' 22" West 359.42 feet to a point in the Northeasterly line of the Chicago and Northwestern Railroad Transportation Company right of way, said point being 770.75 feet South of the South line of East Greenfield Avenue; thence South 39° 06' 20" East along the Northeasterly line of the Chicago and Northwestern Railroad Transportation Company right of way 381.98 feet to a point in the Westerly dock line of the Kinnickinnic River; thence South 21° 32' 49" West along the West dock line of the Kinnickinnic

EXHIBIT "A"

Legal Description

River 57.25 feet to a point; thence South 16° 01' 51" West along the Westerly dock line of the Kinnickinnic River 54.28 feet to a point; thence South 20° 59' 55" West along the Westerly dock line of the Kinnickinnic River 736.17 feet to a point; thence North 74° 49' 58" West 464.11 feet to a point in the North line of Lot 7 aforesaid, said point being 424.30 feet East of the Northwest corner of Lot 7; thence North 56° 39' 10" West 365.79 feet to a point in the East line of the Chicago, Milwaukee, St. Paul and Pacific Railroad Company right of way, said point being 200.00 feet North of the North line of said Lot 7 and 116.00 feet East of the West line of said 1/4 Section; thence North 00° 46' 58" East along the East line of the Chicago, Milwaukee, St. Paul and Pacific Railroad Company right of way on a line which is 116.00 feet East of and parallel to the West line of said 1/4 Section 1552.68 feet to the point of commencement; Excepting therefrom the right of way of the Chicago and Northwestern Railroad Transportation Company 100.00 feet in width running Northwesterly through said lands; And Excepting therefrom the North 16.00 feet as taken for East Greenfield Avenue and those lands lying Northeast of said railroad right of way.

Also Excepting from the above parcels that part contained in Quit Claim Deed recorded as Document No. 4421152.

Tax Key No. 463-9995-200-X

Address: 311 E. Greenfield Avenue

EXHIBIT "B"

LIMITATION LANGUAGE FOR LIMITATION TO AMOUNT OF FEE PAID FOR SEARCH

YOU EXPRESSLY AGREE AND ACKNOWLEDGE THAT IT IS EXTREMELY DIFFICULT, IF NOT IMPOSSIBLE, TO DETERMINE THE EXTENT OF LOSS WHICH COULD ARISE FROM ERRORS OR OMISSIONS IN, OR THE COMPANY'S NEGLIGENCE IN PRODUCING, THE REPORT. YOU RECOGNIZE THAT THE FEE CHARGED IS NOMINAL IN RELATION TO THE POTENTIAL LIABILITY WHICH COULD ARISE FROM SUCH ERRORS OR OMISSIONS OR NEGLIGENCE. THEREFORE, YOU UNDERSTAND THAT THE COMPANY WAS NOT WILLING TO PROCEED IN THE PREPARATION AND ISSUANCE OF THE REQUESTED REPORT BUT FOR YOUR AGREEMENT THAT THE COMPANY'S LIABILITY IS STRICTLY LIMITED.

YOU AGREE THAT MATTERS AFFECTING TITLE BUT WHICH DO NOT APPEAR AS A LIEN OR ENCUMBRANCE AS DEFINED IN THE CUSTOMER AGREEMENT OR APPLICATION ARE OUTSIDE THE SCOPE OF THE REPORT.

YOU AGREE, AS PART OF THE CONSIDERATION FOR THE ISSUANCE OF THIS REPORT AND TO THE FULLEST EXTENT PERMITTED BY LAW, TO LIMIT THE LIABILITY OF THE COMPANY, ITS LICENSORS, AGENTS, SUPPLIERS, RESELLERS, SERVICE PROVIDERS, CONTENT PROVIDERS, OR ANY OTHER SUBSCRIBERS OR SUPPLIERS, SUBSIDIARIES, AFFILIATES, EMPLOYEES, AND SUBCONTRACTORS FOR ANY AND ALL CLAIMS, LIABILITIES, CAUSES OF ACTION, LOSSES, COSTS, DAMAGES AND EXPENSES OF ANY NATURE WHATSOEVER, INCLUDING ATTORNEY'S FEES, HOWEVER ALLEGED OR ARISING INCLUDING BUT NOT LIMITED TO THOSE ARISING FROM BREACH OF CONTRACT, NEGLIGENCE, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF WARRANTY, EQUITY, THE COMMON LAW, STATUTE, OR ANY OTHER THEORY OF RECOVERY OR FROM ANY PERSON'S USE, MISUSE, OR INABILITY TO USE THE REPORT, SO THAT **THE TOTAL AGGREGATE LIABILITY OF THE COMPANY, ITS EMPLOYEES, AGENTS AND SUBCONTRACTORS SHALL NOT EXCEED THE COMPANY'S TOTAL FEE FOR THIS REPORT.**

YOU AGREE THAT THE FOREGOING LIMITATION ON LIABILITY IS A TERM MATERIAL TO THE PRICE YOU ARE PAYING WHICH PRICE IS LOWER THAN WOULD OTHERWISE BE OFFERED TO YOU WITHOUT SAID TERM. YOU RECOGNIZE THAT THE COMPANY WOULD NOT ISSUE THIS REPORT, BUT FOR YOUR AGREEMENT, AS PART OF THE CONSIDERATION GIVEN FOR THIS REPORT, TO THE FOREGOING LIMITATION OF LIABILITY AND THAT ANY SUCH LIABILITY IS CONDITIONED AND PREDICATED UPON THE FULL AND TIMELY PAYMENT OF THE COMPANY'S INVOICE FOR THIS REPORT.

THIS REPORT IS LIMITED IN SCOPE AND IS NOT AN ABSTRACT OF TITLE, TITLE OPINION, PRELIMINARY TITLE REPORT, TITLE REPORT, COMMITMENT TO ISSUE TITLE INSURANCE, OR A TITLE POLICY, AND SHOULD NOT BE RELIED UPON AS SUCH. IN PROVIDING THIS REPORT, THE COMPANY IS NOT ACTING AS AN ABSTRACTOR OF TITLE. THIS REPORT DOES NOT PROVIDE OR OFFER ANY TITLE INSURANCE, LIABILITY COVERAGE OR ERRORS AND OMISSIONS COVERAGE. THIS REPORT IS NOT TO BE RELIED UPON AS A REPRESENTATION OF THE STATUS OF TITLE TO THE PROPERTY. THE COMPANY MAKES NO REPRESENTATIONS AS TO THE REPORT'S ACCURACY, DISCLAIMS ANY WARRANTIES AS TO THE REPORT, ASSUMES NO DUTIES TO YOU, DOES NOT INTEND FOR YOU TO RELY ON THE REPORT, AND ASSUMES NO LIABILITY FOR ANY LOSS OCCURRING BY REASON OF RELIANCE ON THIS REPORT OR OTHERWISE.

IF YOU DO NOT WISH TO LIMIT LIABILITY AS STATED HEREIN AND YOU DESIRE THAT ADDITIONAL LIABILITY BE ASSUMED BY THE COMPANY, YOU MAY REQUEST AND PURCHASE A POLICY OF TITLE INSURANCE, A BINDER, OR A COMMITMENT TO ISSUE A POLICY OF TITLE INSURANCE. NO ASSURANCE IS GIVEN AS TO THE INSURABILITY OF THE TITLE OR STATUS OF TITLE. YOU EXPRESSLY AGREE AND ACKNOWLEDGE THAT YOU HAVE AN INDEPENDENT DUTY TO ENSURE AND/OR RESEARCH THE ACCURACY OF ANY INFORMATION OBTAINED FROM THE COMPANY OR ANY PRODUCTS OR SERVICES PURCHASED.

NO THIRD PARTY IS PERMITTED TO USE OR RELY UPON THE INFORMATION SET FORTH IN THIS REPORT, AND NO LIABILITY TO ANY THIRD PARTY IS UNDERTAKEN BY THE COMPANY.

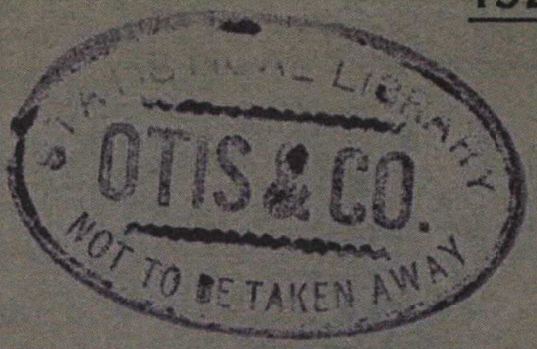
YOU AGREE THAT, TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT WILL THE COMPANY, ITS LICENSORS, AGENTS, SUPPLIERS, RESELLERS, SERVICE PROVIDERS, CONTENT PROVIDERS, OR

EXHIBIT "B"
(continued)

ANY OTHER SUBSCRIBERS OR SUPPLIERS, SUBSIDIARIES, AFFILIATES, EMPLOYEES, AND SUBCONTRACTORS BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE, EXEMPLARY, OR SPECIAL DAMAGES, OR LOSS OF PROFITS, REVENUE, INCOME, SAVINGS, DATA, BUSINESS, OPPORTUNITY, OR GOODWILL, PAIN AND SUFFERING, EMOTIONAL DISTRESS, NON-OPERATION OR INCREASED EXPENSE OF OPERATION, BUSINESS INTERRUPTION OR DELAY, COST OF CAPITAL, OR COST OF REPLACEMENT PRODUCTS OR SERVICES, REGARDLESS OF WHETHER SUCH LIABILITY IS BASED ON BREACH OF CONTRACT, TORT, NEGLIGENCE, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTIES, FAILURE OF ESSENTIAL PURPOSE, OR OTHERWISE AND WHETHER CAUSED BY NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF CONTRACT, BREACH OF WARRANTY, THE COMPANY'S OWN FAULT AND/OR NEGLIGENCE OR ANY OTHER CAUSES WHATSOEVER, AND EVEN IF THE COMPANY HAS BEEN ADVISED OF THE LIKELIHOOD OF SUCH DAMAGES OR KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY FOR SUCH DAMAGES.

THESE LIMITATIONS WILL SURVIVE THE CONTRACT.

1920



FIRST

ANNUAL REPORT

ALLIED CHEMICAL & DYE CORPORATION

DECEMBER 31, 1920

DIRECTORS

ROSCOE BRUNNER
EVERSLEY CHILDS
WM. HAMLIN CHILDS
H. H. S. HANDY
ROWLAND HAZARD
EMMANUEL JANSSEN
WM. J. MATHESON
WM. H. NICHOLS
W. H. NICHOLS, JR.
E. L. PIERCE
ARMAND SOLVAY
ORLANDO F. WEBER

OFFICERS

Chairman of Board	WM. H. NICHOLS
President	ORLANDO F. WEBER
Vice-President	H. H. S. HANDY
Vice-President	E. L. PIERCE
Vice-President	WM. HAMLIN CHILDS
Vice-President	W. H. NICHOLS, JR.
Secretary-Treasurer	CLINTON S. LUTKINS
Asst. Secretary and Asst. Treasurer	THOMAS E. CASEY
Comptroller	FRANK NAY

GENERAL COUNSEL
STEELE & OTIS
61 Broadway, New York, N. Y.

TRANSFER AGENT
GUARANTY TRUST CO. of N. Y.
140 Broadway, New York, N. Y.

REGISTRAR
BANKERS' TRUST COMPANY
16 Wall Street,
New York, N. Y.

To The Stockholders:

There is presented herewith consolidated balance sheet of the Company at December 31, 1920, on which date the Company acquired, in exchange for issue of its preferred and common stock, substantially all the outstanding stock, preferred and common, of General Chemical Company, The Solvay Process Company, Semet-Solvay Company, The Barrett Company, and National Aniline & Chemical Company, Inc. (exclusive of inter-company holdings), pursuant to the Chemical Consolidation Plan of September 9, 1920. There is also presented consolidated income account of the five Consolidating Companies for the year 1920.

As reflected in these statements, inventories at the end of the year have been reduced to the basis of cost or market value, whichever was lower, the reduction being charged to the year's operations; and adequate provision has likewise been made for depreciation and obsolescence of plant during the year. The valuations of assets on the subsidiary companies' books have not in any case been increased in the consolidated statement.

Owing to the fundamental character of the Company's business, it was, of course, inevitable that operations should be curtailed during the recent and current period of general industrial depression. It is confidently expected, however, that the Company will likewise share fully and promptly in the prospective general recovery.

The substantial unanimity of action by stockholders of all the Consolidating Companies, in joining the Consolidation Plan, speaks for itself; and the investigations so far made by the consolidated management confirm the belief that there exist varied opportunities of much promise to be developed through united effort.

Respectfully submitted,

Wm. H. Nichols,
Chairman of the Board of Directors.

Dated, May 7, 1921.

ALLIED CHEMICAL &

AND SUBSIDIA

Consolidated General Balance

(After Elimination of Inter-Compan

ASSETS

PROPERTY ACCOUNT		
Real Estate, Plants, Equipment, Mines, etc.		$141,370,951.59
INVESTMENTS		
Bonds and Stocks of other Companies	$17,808,539.39	
Sundry	2,177,320.92	
TOTAL INVESTMENTS		19,985,860.31
CURRENT ASSETS		
Cash	$19,942,819.04	
Marketable Securities	2,699,531.34	
Notes Receivable	4,125,455.30	
Accounts Receivable	23,267,306.38	
Inventories: Raw Material, Work in Process, Finished Product, Supplies, etc.	45,602,875.09	
TOTAL CURRENT ASSETS		95,637,987.15
DEFERRED CHARGES		
Prepaid Taxes, Interest, Insurance, etc.	$894,937.33	
Other Deferred Charges	471,465.32	
TOTAL DEFERRED CHARGES		1,366,402.65
SINKING AND OTHER FUND ASSETS		
Cash and Securities		1,131,361.50
CONTINGENT ASSETS		
Lien on Property created by Guarantee of Bonds		1,967,040.00
OTHER ASSETS		
Patents, Processes, Trade Marks, Goodwill, etc.		21,283,444.33
TOTAL		$282,743,047.53

We Certify that, in our opinion the above Consolidated General Balance She at December 31, 1920, after the elimination of Inter-company Stock Ownership and Acco stock deposited and that the accompanying Condensed Statement of Income correctly st

New York April 30, 1921.

DYE CORPORATION

RY COMPANIES

Sheet—December 31, 1920

y Stock Ownership and Accounts.)

LIABILITIES

FUNDED DEBT		$5,420,000.00
PURCHASE MONEY OBLIGATIONS		620,547.34
CURRENT LIABILITIES		
Notes Payable	$11,100,000.00	
Accounts Payable	10,027,410.48	
Wages Accrued	449,432.41	
Other Contractual Obligations	1,161,974.05	
TOTAL CURRENT LIABILITIES		22,738,816.94
RESERVES		
Depreciation, Obsolescence, etc.	$54,513,402.60	
General Contingencies	9,427,535.55	
Taxes	2,885,577.87	
Insurance	2,005,020.40	
Doubtful Accounts	485,155.32	
Interest Accrued	106,203.35	
Sundry	3,522,126.74	
TOTAL RESERVES		72.945,021.83
CONTINGENT LIABILITIES—Bond Issue Guaranteed		1,967,040.00
MINORITY STOCKHOLDERS' INTERESTS		
Undeposited Stock of Five Consolidated Companies	$4,312,412.72	
Minority Interests of Subsidiaries	326,527.95	
TOTAL MINORITY INTERESTS		4,638,940.67
CAPITAL STOCK		
Preferred—373,264 Shares, Par $100.	$37,326,400.00	
Common—2,143,455 Shares without Par Value, Declared at $5. per Share	10,717,275.00	
TOTAL CAPITAL STOCK		48,043,675.00
SURPLUS—December 31, 1920		126,369,005.75
TOTAL		$282,743,047.53

Respectfully submitted,

FRANK NAY, Comptroller.

et properly presents the financial condition of the Company and its Subsidiary Companies unts, and showing the capital stock at the amount issued or to be issued in exchange for ates the profit from Operations and Investments for the year ended December 31, 1920.

WEST & FLINT,

Accountants and Auditors.

ALLIED CHEMICAL & DYE CORPORATION

CONDENSED INCOME ACCOUNT
OF THE
FIVE CONSOLIDATING COMPANIES AND THEIR SUBSIDIARIES

YEAR ENDED DECEMBER 31, 1920

Gross Income after provision for depreciation, obsolescence, all state and local taxes, repairs and renewals		$29,768,751.32
Reduction of Inventories to cost or market whichever was lower as of December 31, 1920	$10,226,687.73	
Loss resulting from sale of securities	798,435.12	11,025,122.85
Net Income before Federal Taxes		$18,743,628.47
Federal Taxes		2,563,689.26
Net Income		$16,179,939.21